

What is claimed is:

1. A method of calibrating ink ejection elements of an image forming device, said image forming device comprising a carriage supporting said ink ejection elements and an optical scanner, said method comprising:

5 printing a test pattern onto a print medium with said ink ejection elements;

sensing said test pattern with said optical scanner by moving said optical scanner across said print medium in a scanning direction and scanning a substantial width of said test pattern in a single pass of said optical scanner;

10 determining whether any of said ink ejection elements contains at least one defect based on said sensed test pattern; and

calibrating said ink ejection elements determined to contain said at least one defect.

2. The method according to claim 1, wherein said test pattern sensing step further comprises scanning the width of said test pattern in a single pass of said optical scanner.

15 3. The method according to claim 1, further comprising:

converting said scanned test pattern into electronic data; and

storing said electronic data prior to determining whether any of said ink ejection elements contain said at least one defect.

20 4. The method according to claim 3, further comprising:

analyzing said electronic data to determine whether any of said ink ejection elements contains at least one defect.

25 5. The method according to claim 1, wherein said step of printing said test pattern further comprises printing a plurality of test patterns by scanning said ink ejection elements over said print medium at various speeds.

30 6. The method according to claim 5, wherein said step of sensing said test pattern further comprises sensing each of said plurality of test patterns.

7. The method according to claim 6, wherein said step of determining whether any of said ink ejection elements contains said at least one defect further comprises comparing the sensed test patterns in relation to the speed the ink ejection elements were traveling during the printing of said test patterns.

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8. The method according to claim 7, wherein said step of calibrating said ink ejection elements determined to contain at least one defect further comprises calibrating said ink ejection elements for various printmodes.